



**THE DATASHEET OF
SFSD4096N3BM1TO-I-GE-2B1-STD**



swissbit®

Product Fact Sheet

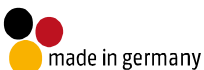
**Industrial
microSDHC / SDXC
Memory Card**

S-45u Series
UHS-I Interface, MLC

Extended and Industrial
Temperature Grade

Date: April 08, 2019
Revision: 1.24

durabit™
"the better MLC"



Product Summary

- **Capacities:** 4 GBytes, 8 GBytes, 16 GBytes, 32 GBytes, 64 GBytes, 128 GBytes
- **Form Factor:** Standard microSD Memory card form factor – 15.0mm x 11.0mm x 0.7mm (1.0mm)
- **Compliance:** Fully compliant with SD Memory Card specification 2.0 and 3.0 and MICRO SD Memory Card Addendum 4.00
 - SDHC/SDXC default/high speed mode and UHS supported
 - Up to speed class 10 and U1 and according SD3.0 specification
 - FAT32 / exFAT preformatted
- **Performance:**
 - SD Default speed, SD High speed, SD UHS-I
 - Read Performance: Sequential Read up to 44 MBytes/s, Random Read IOPS up to 1,349
 - Write Performance: Sequential Write up to 22 MBytes/s, Random Write IOPS up to 966
- **Operating Temperature Range¹:**
 - Extended: -25 °C to 85 °C
 - Industrial: -40 °C to 85 °C
- **Storage Temperature Range:**
 - Extended: -25 °C to 100 °C
 - Industrial: -40 °C to 100 °C
- **Operating Voltage:** 2.7...3.6V normal operating voltage (Low-power CMOS technology)
- **Data Retention:** 10 Years @ Life Begin / 1 Year @ Life End
- **Humidity:** 85% RH @85°C 1000h
- **Electromagnetic Compatibility Test:** Radiated Emission; Radiated Immunity; Electrostatic Discharge

Product Features

- Optimized FW algorithms especially for high read access and long data retention applications
 - Patented power-off reliability technology, Wear Leveling technology
 - Write Endurance technology, Read Disturb Management
 - Data Care Management, Near miss ECC technology
 - Diagnostic features with Life Time Monitoring tool support
- High reliability
 - Designed for industrial market especially read intensive application like navigation, infotainment, POS/POI, medical and general boot medium use case
 - The product is optimized for long life cycle and provides excellent data retention in high temperature mission profiles.
 - Number of card insertions/removals 20,000
 - SIP (System In Package) process for extreme dust, water and ESD proof
 - Selected AEC-Q100 qualification
- Manufactured in a TS 16949 certified factory
- Controlled BOM & PCN process
- Customized options like CID registers, CPRM keys, firmware incl. settings and marking by projects
- In-Field Firmware Update
- Swissbit Life Time Monitoring (SBLTM) Tool and SDK for SBLTM (on request)

Why Swissbit?

Swissbit strives to create innovative technologies for future market opportunities utilizing a highly skilled in-house product research and development team. Swissbit maintains a marketing edge by continuing to manufacture world-class high quality memory products and providing customers with both high value and low cost of ownership achieved through efficient processes and procedures.

¹ High Temperature storage without operation reduces the data retention, in operation the data will be refreshed, if data error issues were detected

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

- ⊖ [View SFSD4096N3BM1TO-I-GE-2B1-STD on WIN SOURCE](#)
- ⊖ [Swissbit NA Inc. Information](#)

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- ✓ Global Sourcing Solution
- ✓ Obsolete Management
- ✓ Cost Control Management
- ✓ Shortage Management
- ✓ Alternative Solution
- ✓ Excess Inventory Management